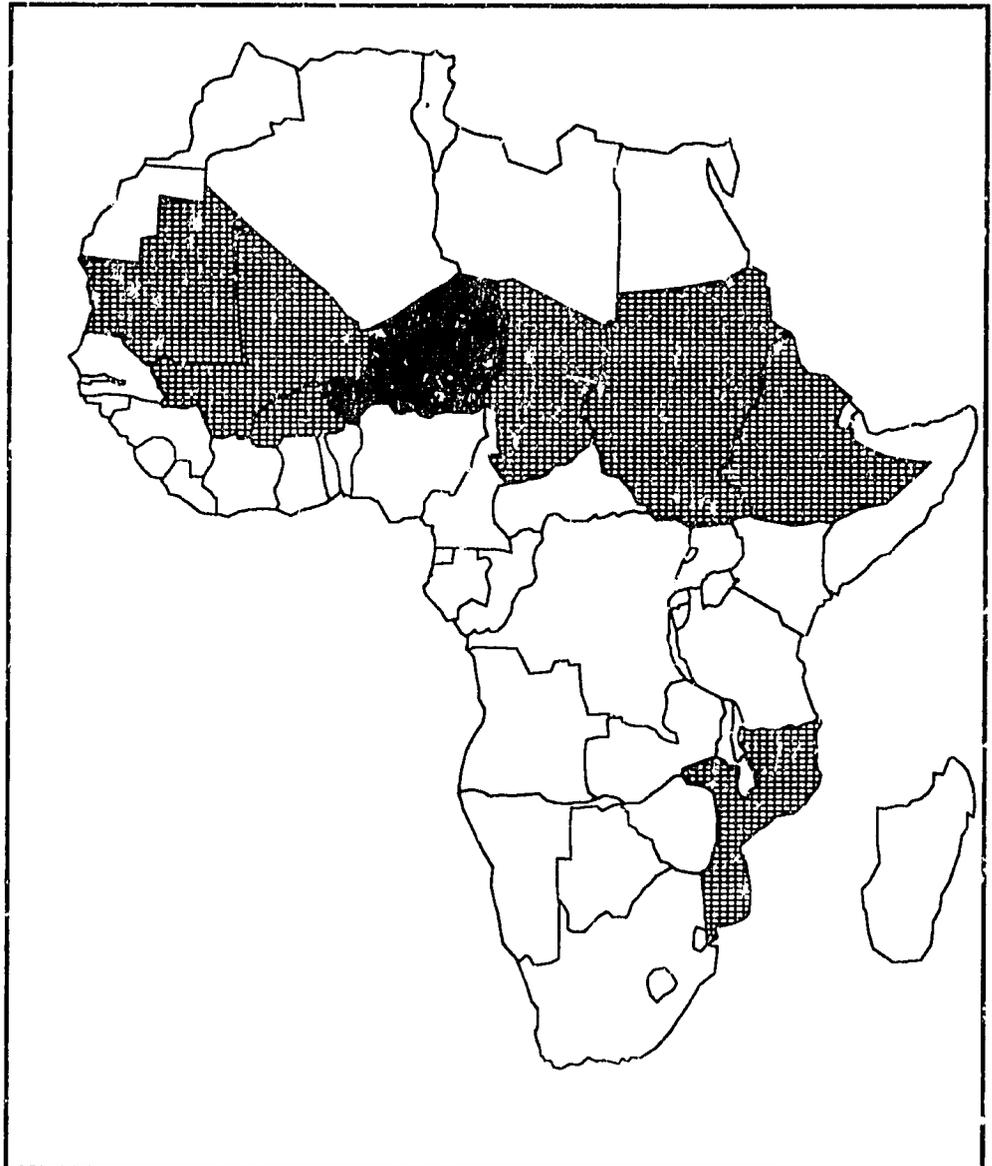


Report Number 7  
December 1986

# FEWS Country Report NIGER



Africa Bureau  
U.S. Agency  
for International  
Development

# SUMMARY

MOST ESTIMATES OF THE 1986 HARVEST AGREE ON APPROXIMATELY 1,700,000 TO 1,800,000 MT PRODUCED. THIS IS NEAR LAST YEAR'S RECORD.

## TAHOUA DEPARTMENT

At-Risk Population: 164,600 ↓  
Ag. Production from 1985: ↑

## AGADEZ DEPARTMENT

At-Risk Population: 163,200 ↔  
Ag. Production from 1985: ↔

## NIAMEY DEPARTMENT

At-Risk Population: 216,700 ↑  
Ag. Production from 1985: ↓  
◆ Potential Measles Problem

## DIFFA DEPARTMENT

At-Risk Population: 116,300 ↑  
Ag. Production from 1985: ↓

## DOSSO DEPARTMENT

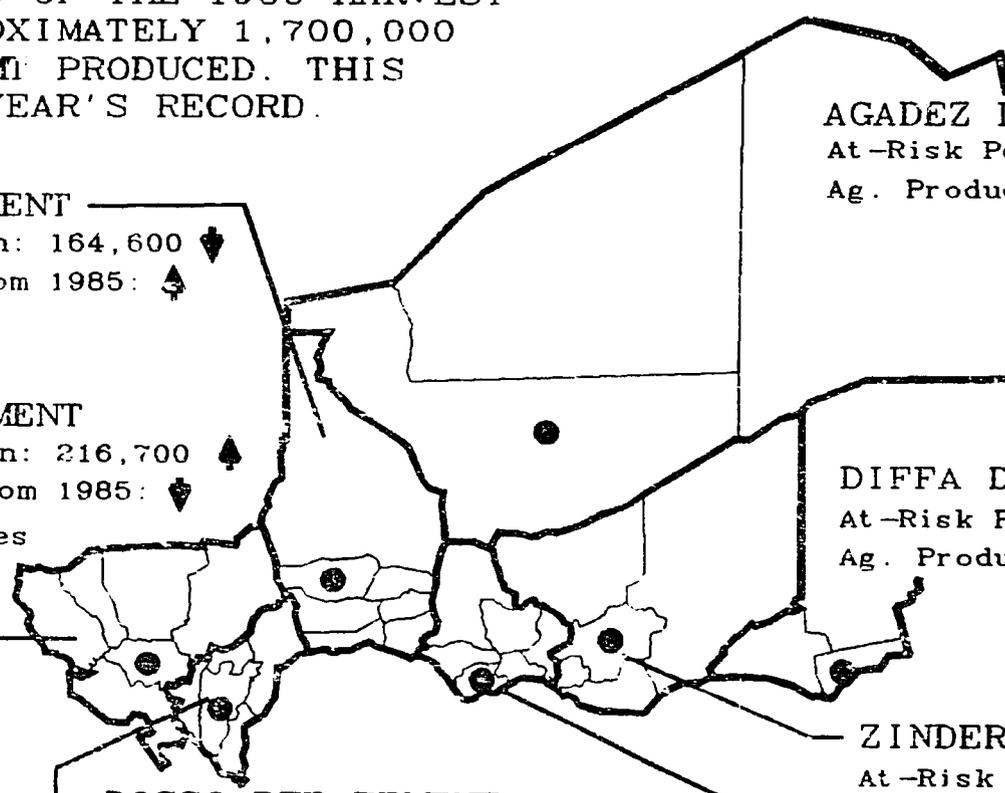
At-Risk Population: 4,800 ↔  
Ag. Production from 1985: ↔

## ZINDER DEPARTMENT

At-Risk Population: 14,000 ↓  
Ag. Production from 1985: ↓

## MARADI DEPARTMENT

At-Risk Population: 136,600 ↑  
Ag. Production from 1985: ↓



- DEPARTMENT CAPITAL
- ▲ INCREASE FROM 1985
- ▼ DECREASE FROM 1985
- ↔ STABLE. NO CHANGE

# NIGER

## At-Risk Populations: Numbers and Locations

---

Prepared for the  
Africa Bureau of the  
U.S. Agency for  
International Development

Prepared by  
Price, Williams & Associates, Inc.  
December 1986

### Contents

#### Page

i	Introduction
1	Summary
1	Agricultural Production
5	Populations At-Risk
9	Health and Nutrition
9	Grasshoppers

## List of Figures

### Page

2	Map	2	Reference Points
3	Table	1	Estimates of Gross Cereal Production
4	Map	3	Regional Agricultural Production
5	Chart	1	Cereal Production by Department, 1980/1986
6	Chart	2	At-Risk Populations
7	Table	2	Relationship of Harvest to At-Risk Numbers
10	Chart	3	Measles Cases in the Niamey Area

## **INTRODUCTION**

This is the seventh of a series of monthly reports issued by the Famine Early Warning System (FEWS) on Niger, current as of December 15th, 1986. It is designed to provide decisionmakers with current information and analysis on existing and potential nutrition emergency situations. Each situation identified is described in terms of geographical extent and the number of people involved, or at-risk, and the proximate causes insofar as they have been discerned.

Use of the term "at-risk" to identify vulnerable populations is problematical since no generally agreed upon definition exists. Yet it is necessary to identify or "target" populations in-need or "at-risk" in order to determine appropriate forms and levels of intervention. Thus for the present, until a better usage can be found, FEWS reports will employ the term "at-risk" to mean...

...those persons lacking sufficient food, or resources to acquire sufficient food, to avert a nutritional crisis, i.e., a progressive deterioration in their health or nutritional condition below the status quo and who, as a result, require specific intervention to avoid a life-threatening situation.

Perhaps of most importance to decisionmakers, the process underlying the deteriorating situation is highlighted by the FEWS effort, hopefully with enough specificity and forewarning to permit alternative intervention strategies to be examined and implemented. Food assistance strategies are key to famine avoidance. However, other types of intervention can be of major importance both in the short-term and in the long-run, including medical, transport, storage, economic development policy change, etc.

Where possible, food needs estimates are included in the FEWS reports. It is important to understand, however, that no direct relation exists between numbers of persons at-risk and the quantity of food assistance needed. This is because famines are the culmination of slow-onset disaster processes which can be complex in the extreme.

**The food needs of individual populations at-risk depend upon when in the disaster process identification is made and the extent of its cumulative impact on the individuals concerned. Further, the amount of food assistance required, whether from internal or external sources, depends upon a host of considerations. Thus the food needs estimates presented periodically in FEWS reports should not be interpreted to mean food aid needs, e.g., as under PL480 or other donor programs.**

---

**FEWS is operated by AID's Office of Technical Resources in the Bureau for Africa in cooperation with numerous USG and other organizations.**

## **SUMMARY**

Most forecasts of Niger's gross agricultural production in 1986 are reasonably similar in predicting a relatively good year. The highest estimate differs from the lowest by only 100,000 metric tons. Even the lowest estimate would not indicate a need for new food aid this year. Nevertheless, the Ministry of Agriculture estimates 815,000 people currently at-risk. In comparison to last year, this figure is 30 percent higher and includes many more people from Niamey, Maradi, and Diffa Departments, but fewer from Tahoua and Zinder. A very low incidence of measles and fewer vaccinations in the city of Niamey indicate the potential for a greater than normal number of cases this year. The Government of Niger (GON) is drawing up its strategy for dealing with the 1987 grasshopper threat, which is expected to be much greater than in 1986. This strengthened effort is expected to cost an additional U.S. \$9,000,000 over two years.

## **Issues**

- The abundance and low price of grain in Niger comes at a time when the government is moving away from cereal market interventions. In the past, farmers could expect a minimum price for the surplus grain they produced. The lack of such a floor this year may discourage some production next year. However, the heavy financial burden of intervention this year would have threatened the solvency of the agency performing that function.
- Niger intends to strengthen its already relatively sound Crop Protection Service in order to handle the increased grasshopper threat for 1987. This local option, while not in itself reflecting negatively on a regionally-coordinated effort, will certainly compete for some of the same donor funding and attention. It is also an option that is likely to be attractive to some of Niger's neighbors.
- Parts of the grasshopper control effort for the 1987 rainy season will require training and other preparatory actions. The lead time for some of these will be at least 5 months.

## **Key December Events**

- The FAO-coordinated locust/grasshopper evaluation team working in Niger should complete its work and present a preliminary report in December.

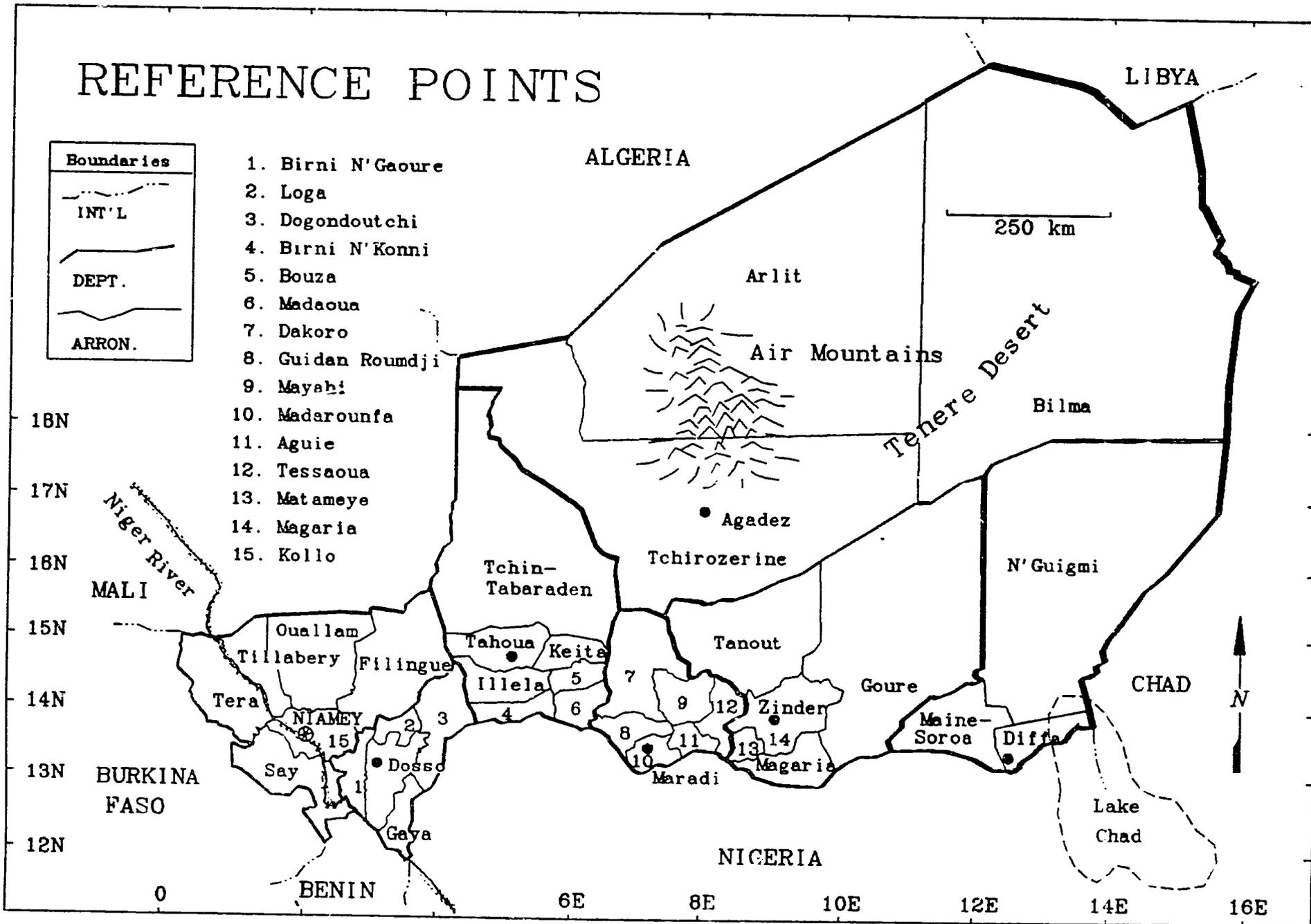
## **AGRICULTURAL PRODUCTION**

The Nigerien Ministry of Agriculture (MinAg) released its estimate of the 1986 harvest in early December. Their estimate of gross cereal production falls almost midway

# REFERENCE POINTS

Boundaries	
	INT'L
	DEPT.
	ARRON.

1. Birni N'Gaoure
2. Loga
3. Dogondoutchi
4. Birni N'Konni
5. Bouza
6. Madaoua
7. Dakoro
8. Guidan Roundji
9. Mayahi
10. Madarounfa
11. Aguié
12. Tessaoua
13. Matameye
14. Magaria
15. Kollo



2

FEWS/PWA 11/86

between the recent CILSS/FAO estimate of 1,700,000 MT and the USAID estimate of 1,807,000 MT. As shown in Table 1, it is very close to the final NOAA estimate.

**TABLE 1: Estimates of Gross Cereal Production\***

DEPT	MINAG 12/86	USAID 11/86	NOAA 10/86	MINAG 1985	FAO 1980
Niamey	360,022	357,000	332,690	386,000	377,400
Dosso	316,007	298,000	300,780	312,000	267,400
Tahoua	327,893	345,000	310,947	284,199	295,000
Maradi	372,075	377,000	398,907	391,000	358,800
Zinder	350,484	403,000	368,790	380,462	394,700
Diffa	11,793	26,000	10,295	25,954	47,900
Agadez	2,000	1,000	NA	1,000	0
<b>TOTALS</b> ('000 MT)	<b>1,740</b>	<b>1,807</b>	<b>1,723</b>	<b>1,780</b>	<b>1,741</b>

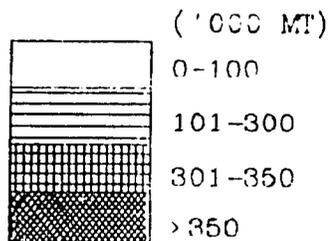
\* The CILSS/FAO estimate is not included in this table as only the national harvest figure is available for this report.

On a department level, the differences in the three 1986 production forecasts are in some cases substantial, but none of the estimates are consistently over or under the other two for this year. The closeness of the NOAA and MinAg estimates is noteworthy because NOAA came up with its figure two months earlier using remote sensing technology. The three estimates for 1986 have been mapped to show the consistent picture presented by these figures. (See Map 3). The production figures for 1985 and 1980 are included in the table and on the map to show that the estimates are within the range of past levels.

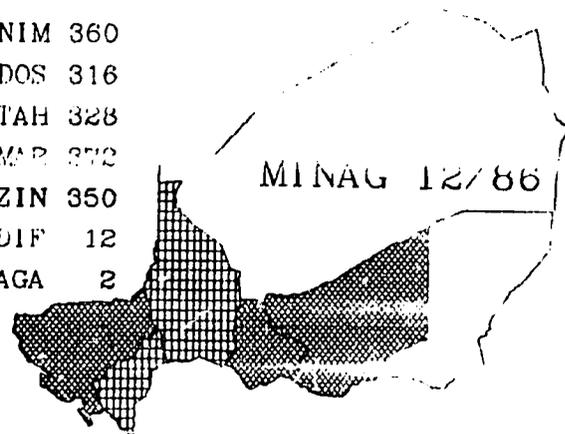
Chart 1 shows the change in the percentage of national cereal (millet and sorghum) production that each department represents, from 1980 to 1986. Trends apparent from this representation are the growth of Dosso in its importance to the national crop, and the decline of the already small contribution of Diffa to this total.

# REGIONAL AGRICULTURAL PRODUCTION

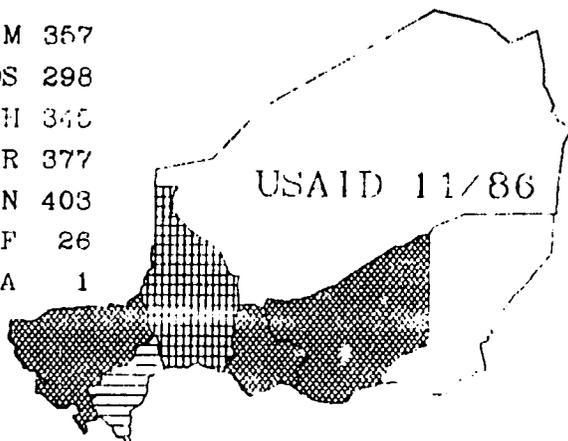
1986 Forecasts and Actual Production in 1985 and 1980



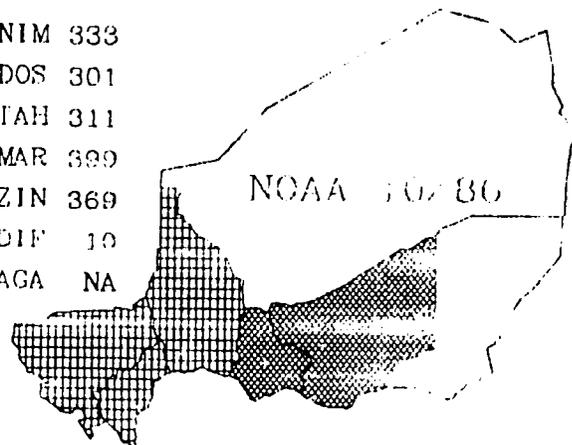
NIM 360  
DOS 316  
TAH 328  
MAR 372  
ZIN 350  
DIF 12  
AGA 2



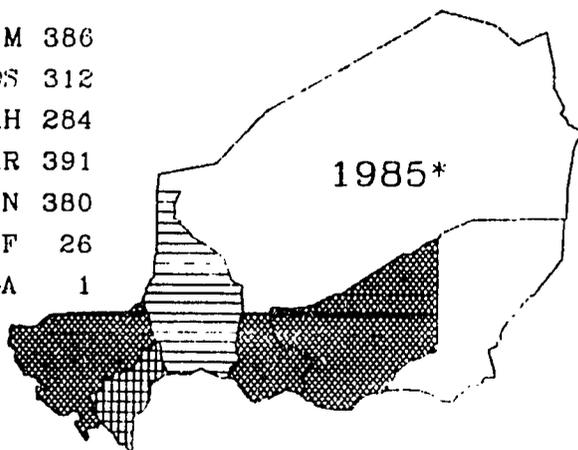
NIM 357  
DOS 298  
TAH 340  
MAR 377  
ZIN 403  
DIF 26  
AGA 1



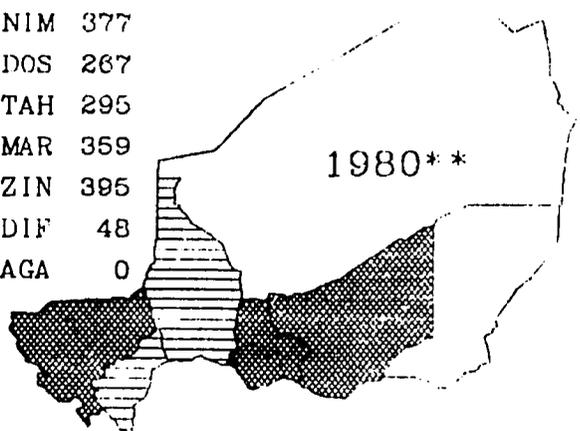
NIM 333  
DOS 301  
TAH 311  
MAR 399  
ZIN 369  
DIF 10  
AGA NA



NIM 386  
DOS 312  
TAH 284  
MAR 391  
ZIN 380  
DIF 26  
AGA 1



NIM 377  
DOS 267  
TAH 295  
MAR 359  
ZIN 395  
DIF 48  
AGA 0

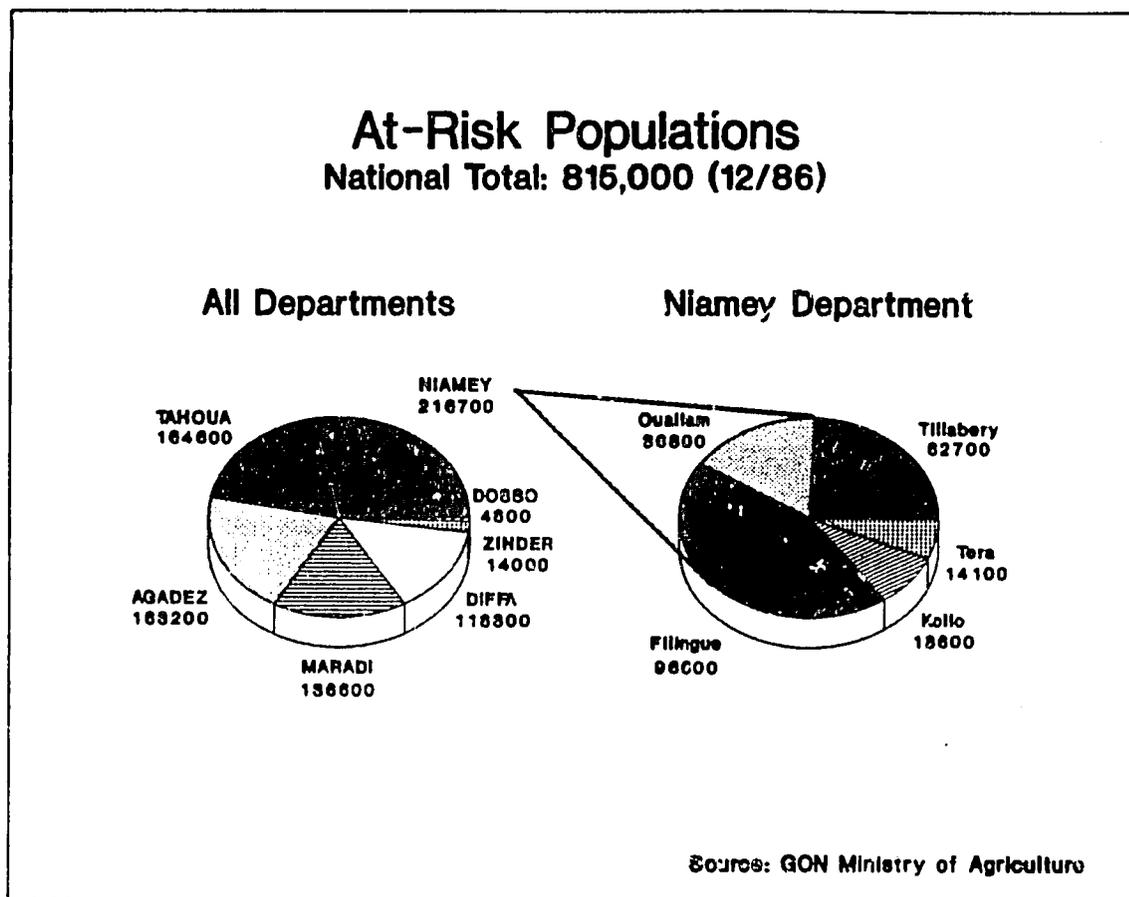


\* Source: MINAG

\*\* Source: FAO



CHART 2. At-Risk Populations



highest percentage of population at-risk with 77% and Diffa is next with 59%. In Niamey, Tahoua, and Maradi, 11-14% of the population is at-risk, while Dosso and Zinder count only 1% or less in this category.

The high figures for Agadez and Diffa are more or less expected, as the problem of insufficient food production is chronic in these departments. On the other hand, the harvests in Diffa have been relatively worse than usual for at least the last two years, and may have caused a more severe food emergency situation than in Agadez. Similarly, the harvests in the northern parts of the Niamey and Maradi Departments were unusually poor and have left a large number of people with greater than usual food supply problems.

While the food supply problems are serious in these and other more isolated areas, they are not of an immediately

life-threatening nature, nor are great numbers of people expected to leave their homes to go to emergency food distribution points. The problems are more subtle, giving rise to less drastic coping mechanisms. Some people may simply eat less. Others, particularly the males, may leave earlier or in greater numbers in search of work in the cities or on the coast. Many families have members living in cities or in other areas from whom they may seek food or money to get them through this period. Some families may be forced to liquidate meager assets, such as jewelry, radios, or watches. These options all have significant short and long-range impacts, usually negative, on the well-being of the individuals and the community as a whole, thus justifying the designation of these people as "at-risk".

The Ministry of Agriculture figure of 815,000 people at-risk can be compared with their earlier estimate of approximately 624,000 in the first half of 1986. At a department level, the difference between these figures includes increases in Niamey (+131,301), Diffa (+88,169) and Maradi (+87,829) departments, and decreases in Zinder (-30,627) and Tahoua (-75,798).

An interesting comparison is to be made between the increases (or decreases) in cereal production in the various departments from 1985 to 1986, and the increases (or decreases) in the numbers of people judged at-risk in those departments. One would expect an inverse relationship here; if production goes down, the number of people at-risk should generally go up, and vice-versa. Table 2 presents this comparison using Ministry of Agriculture figures for both production and populations at-risk.

**TABLE 2: Relationship of Harvest to At-Risk Numbers**

DEPT.	Harvest Change 85 to 86 ( <sup>'000</sup> MT)	Maximum At-Risk Change Expected ( <sup>'000</sup> )*	At-Risk MinAg Est. ( <sup>'000</sup> )
Niamey	-26	+104	+131
Tahoua	+43	-172	- 76
Maradi	-19	+ 76	+ 88
Zinder	-30	+120	- 31
Diffa	-14	+ 56	+ 88

\* The maximum expected change in number of at-risk people was computed by dividing the harvest change by

.25 (reflecting a worst case scenario in which all the people at-risk need 250 kg of cereal per year), to show how many people could be fed by the increase or decrease in production.

For Niamey, Maradi, and Diffa Departments, the actual increases in the number of people declared at-risk generally reflect the decreases in production. The at-risk numbers are still higher than expected, and may show a deliberate overcounting so as not to understate the size of the problem. The relationship between change in production and change in number of people at-risk is not as close for the two other departments.

For Tahoua, the large difference between the expected and actual is due to the large nomadic population in that department. The increase in production did not occur in areas where nomads at-risk are found, and their numbers remain largely unaffected by it. The number of agropastoralists at-risk went down as they reaped the benefit of a good harvest.

The figures for Zinder are much harder to explain. The unexpected direct correlation between the drop in the size of the harvest and the large drop in the number of people declared at-risk suggests that there may be a problem in the data. The most likely area of such a problem is in an exaggeration of the earlier estimate of people at-risk, or an undercounting this year. Given the positive estimates of production this year, and that there are no reports of stress on the food supply in this area, the earlier figures would appear to be suspect.

There are two final points to be made about food need assumptions, which run throughout the analyses above. The 250 kg/year cereal need for agropastoralists and 200 kg for nomads is based on an assumed level of consumption set by the GON. This level is, of course, difficult to fix precisely. These are, however, rather high levels compared to other Sahelian areas, and probably overstate the average cereal need. Nevertheless, this figure is used in the above analysis because it shows a worst case picture which helps to define the outside limits of the problem. On the other hand, the cereal need for nomadic herders is based upon an assumed herd size, an assumption which may not match the reality of current herd sizes due to the heavy drought-related animal losses in 1984. The cereal need figure used here may not meet the normal consumption needs of this group.

## **HEALTH and NUTRITION**

The city of Niamey faces the the immediate possibility of a larger than normal measles outbreak. From 1981 to 1985, the incidence of measles reported from medical facilities in the city of Niamey has been steadily declining each year, a testament to the effectiveness of vaccination campaigns. In 1986, there were only 13% as many measles cases reported as there were for an average year in the previous five years. However, as the cases of measles have declined, there has also been a decrease in the numbers of children being vaccinated. Add to this a high rate of birth, and there is a sizeable pool of children who are not immune to measles.

The normal measles "season" begins in November or December. Chart 3 graphically shows the incidence of measles in the city of Niamey over a 13 week period, running from early August to the beginning of November 1986, and also charts cases reported in the six surrounding arrondissements of Niamey Department (Kollo, Filingue, Ouallam, Tillabery, Tera, Say) and Birni N'Gaoure in Dosso Department. During this 1986 period, there were slightly more cases recorded in the Niamey Commune than is average there for similar 13 week periods between 1981 and 1985.

## **GRASSHOPPERS**

The Nigerian Crop Protection Service (CPS) has developed its proposed grasshopper strategy for the next two years, and has submitted the program to international donor agencies for funding. Given the evolution of the problem this year, the most common forecast is that the CPS will have a much greater battle with grasshoppers in 1987 than it did in 1986.

While the CPS is generally considered one of the best in the Sahelian region, it will need to increase its capabilities for both aerial and ground-based treatment. In its strategy, it relies heavily on the use of village level "brigades", villagers with a low-level of training using backpack sprayers, for ground treatment. It is proposing a budget which would allow the training of 5,000 more brigades over the next two years to supplement the 3,000 which are now operational. By the second year, these brigades would be able to cover 200,000 ha under the currently proposed budget amounts. The budget for aerial treatment would cover spraying for 500,000 ha. A total of approximately 421,000 hectares (aerial: 270,000, ground: 151,000) were sprayed this year. The money needed to carry out both of these treatment programs, including the extensive preparatory work required to build the skills and capabilities of CPS personnel, is estimated at approximately US \$9,000,000.

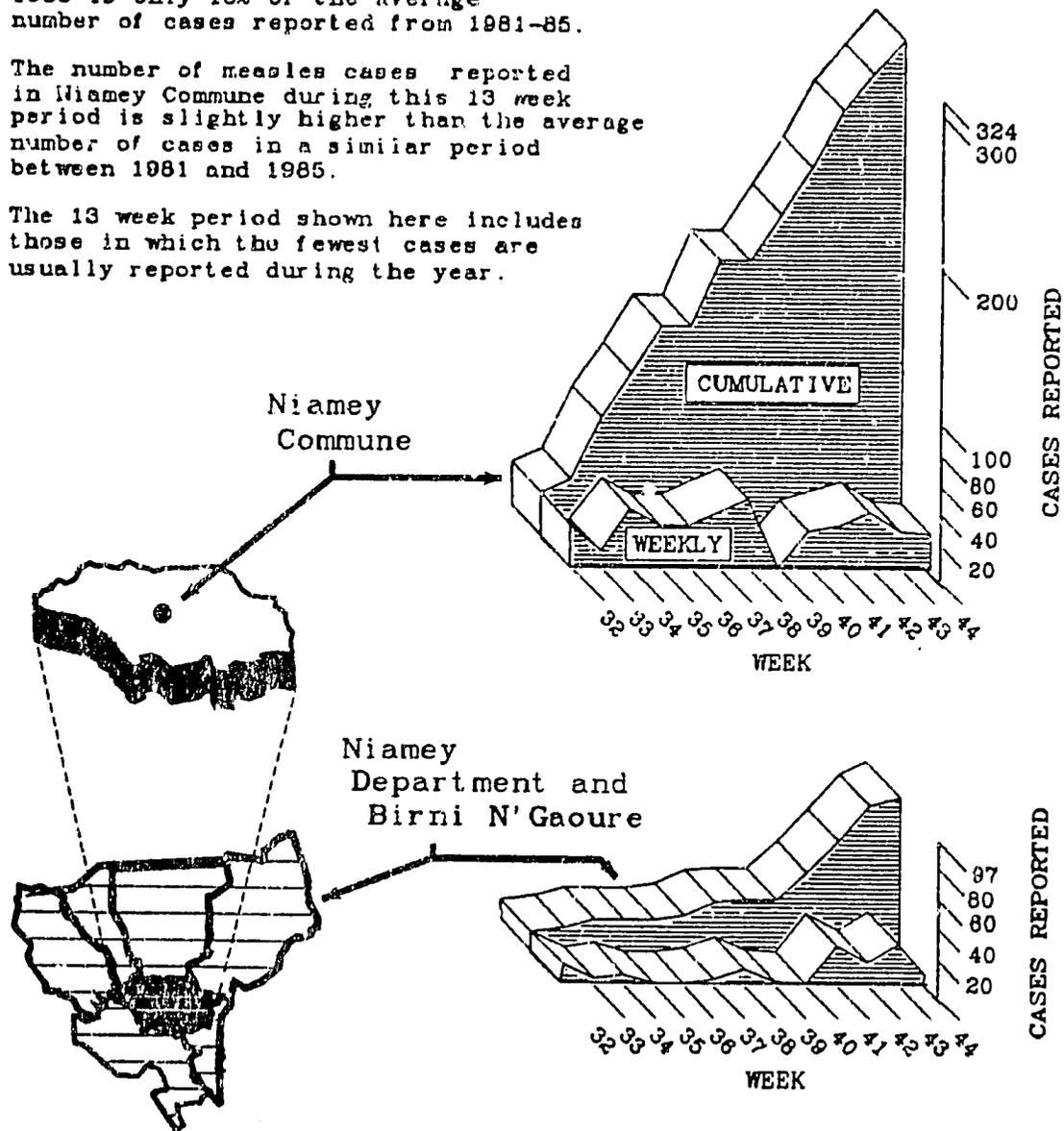
CHART 3: NIGER

# Measles Cases in the Niamey Area (Weeks 32-44)

Nationally, the number of measles cases in 1986 is only 13% of the average number of cases reported from 1981-85.

The number of measles cases reported in Niamey Commune during this 13 week period is slightly higher than the average number of cases in a similar period between 1981 and 1985.

The 13 week period shown here includes those in which the fewest cases are usually reported during the year.



FEWS/PWA 12/86

The CPS has already registered donor pledges covering the training and outfitting of 5,000 brigades, and much of the pesticides to be used in ground-based treatment. It is hoping that USAID will pick up a good part of the budget related to serial spraying, as much of the current equipment being used is of American manufacture.